



Sun StorEdge™ Network 2 Gb McDATA Sphereon 4500 Switch and Intrepid 6064 and 6140 Directors Release Notes

5.01.00 Firmware

Sun Microsystems, Inc.
www.sun.com

Part No. 817-3809-10
September 2003, Revision A

Submit comments about this document at: <http://www.sun.com/hwdocs/feedback>

Copyright 2003 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, AnswerBook2, docs.sun.com, Sun StorEdge, SunSolve, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and in other countries.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc. Netscape is a trademark or registered trademark of Netscape Communications Corporation in the United States and other countries.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2003 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, Etats-Unis. Tous droits réservés.

Sun Microsystems, Inc. a les droits de propriété intellectuels relatifs à la technologie qui est décrite dans ce document. En particulier, et sans la limitation, ces droits de propriété intellectuelle peuvent inclure un ou plus des brevets américains énumérés à <http://www.sun.com/patents> et un ou les brevets plus supplémentaires ou les applications de brevet en attente dans les Etats-Unis et dans les autres pays.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, AnswerBook2, docs.sun.com, Sun StorEdge, SunSolve, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits protégeant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc. Netscape est une marque de Netscape Communications Corporation aux Etats-Unis et dans d'autres pays.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciées de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISÉE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE À LA QUALITÉ MARCHANDE, À L'APTITUDE À UNE UTILISATION PARTICULIÈRE OU À L'ABSENCE DE CONTREFAÇON.

Contents

New Features In This Firmware Release	2
System Requirements	2
Switch Firmware	2
Required Packages	3
Required Patches	3
▼ To Download and Install the Patches	4
Known Issues	5
Bugs	5
Bugs Common to the 4500 Switch and Both Directors	5
4500 Switch Bugs	6
6064 Director Bugs	7
6140 Director Bugs	7
Bugs With System Components With Any Switch or Director	8
Service Contact Information	8

Sun StorEdge Network 2 Gb McDATA Sphereon 4500 Switch and Intrepid 6064 and 6140 Directors Release Notes

5.01.00 Firmware

This document contains important information about the Sun StorEdge Network 2 Gb McDATA Sphereon 4500 Switch and Intrepid 6064 and 6140 Directors with 5.01.00 firmware that was not available at the time the product documentation was published. Review this document so that you are aware of issues or requirements that can impact the installation and operation of the products.

Note – Sun is not responsible for the availability of third-party Web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused by or in connection with the use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

This document contains the following main sections:

- “New Features In This Firmware Release” on page 2
- “System Requirements” on page 2
- “Known Issues” on page 5
- “Bugs” on page 5
- “Service Contact Information” on page 8

New Features In This Firmware Release

The 5.01.00 firmware upgrade consists of a software patch that you can download from the SunSolveSM web site. The firmware upgrade is for the following switches and directors:

- Sun StorEdge Network 2 Gb McDATA Sphereon 4500 Switch
- Sun StorEdge Network 2 Gb McDATA Intrepid 6064 Director
- Sun StorEdge Network 2 Gb McDATA Intrepid 6140 Director

The patch provides some bug fixes and several new features. The features include:

- Hard zoning, which requires zone members to be identified by a worldwide name (WWN) and is enforced in the fabric routing tables to enhance security
- Zoning registered state change notification (RSCN) control
- New graphical user interface (GUI) features—Fabric View, and Save Zone Set
- Counter threshold alerting, which allows the configuring of limits and alerts for any of the supported port statistical fields available through the CLI

For more information about these features, see <http://www.mcdata.com/>.

System Requirements

The 5.01.00 firmware upgrade requires the use of these software products:

- McDATA Enterprise Fabric Connectivity Manager (EFCM) Lite, 7.00.00 minimum
- McDATA SANpilot through Microsoft Internet Explorer, 5.00.3315.1000x minimum
- McDATA SANpilot through NetscapeTM Communicator, versions 4.7 through 7.0.

Switch Firmware

This firmware upgrade can only be performed on switches and directors having 4.0 and 4.1 firmware.

Required Packages

Certain software packages and patches are required for Sun StorEdge SAN Foundation software and the Sun StorEdge Traffic Manager software for the Solaris Operating System (OS) to be supported on your SAN. For instructions to find, download, and install these packages and patches, see *Sun StorEdge SAN Foundation Software 4.2 Installation Guide*, 817-1244-xx.

Required Patches

You must download the firmware 5.01.00 patch to upgrade your switches and directors. TABLE 1 gives the patch and a brief description.

TABLE 1 Upgrade Patch

Upgrade Patch	Description
116001-xx	McDATA EOS version 5.01.00 upgrade

You must also download the appropriate Sun Solaris patches listed in TABLE 2 or TABLE 3 for proper switch and director operation.

TABLE 2 Solaris 8 Patches

Solaris 8 Patches	Description
111412-xx	Sun StorEdge Traffic Manager
111095-xx	fctl/fp/fcp/usoc driver
111096-xx	fcip driver
111097-xx	qlc driver
111413-xx	luxadm liba5k and libg_fc
111846-xx	cfgadm fp plug-in library patch
111847-xx	SAN Foundation kit
114877-xx	JNI HBA patch for Solaris 8

TABLE 3 Solaris 9 Patches

Solaris 9 Patches	Description
113039-xx	Sun StorEdge Traffic Manager
113040-xx	fctl/fp/fcp/usoc driver
113041-xx	fcip driver
113042-xx	qlc driver
113043-xx	luxadm liba5k and libg_fc
113044-xx	cfgadm fp plug-in library patch
111847-xx	SAN Foundation kit
114878-xx	JNI HBA patch for Solaris 9

▼ To Download and Install the Patches

- 1. Access SunSolve at <http://www.sunsolve.sun.com>.**
- 2. Under SunSolve Patch Contents, click Patch Portal.**
- 3. Under PatchFinder, type the patch and click Find Patch.**
You do not have to type the version number (-xx). PatchFinder automatically finds the latest patch.
- 4. Verify the correct patch.**
- 5. Click [Download Patch (nn,nnn bytes) HTTP FTP].**
For additional patches, use your browser to return to the Patch Portal screen.
- 6. Follow the instructions in the README file of each patch to install the patch.**

Known Issues

In the *McDATA Enterprise Operating System Release Notes, Version 05.01.00*, part number 958-000190, two important issues in the “Upgrade and Downgrade Considerations” section are the following:

- The McDATA Enterprise Operating System (EOS) 5.01.00 download process can fail because of insufficient memory. This does not pertain to Sun switches and directors—only to some early-shipped 1 Gb McDATA switches and directors.
- The contents of nonvolatile memory (NVSRAM) on the active CTP (Control Processor) card (the CTP card with the bright LED) can become corrupted. See the *McDATA Enterprise Operating System Release Notes, Version 05.01.00*.

Bugs

The bugs in this section are listed in order of priority (P) first, and then severity (S).

Bugs Common to the 4500 Switch and Both Directors

- **Bug 4834286 (P4/S4):** The McDATA Enterprise Fabric Connectivity Management (EFCM) Lite software zone setting and other zone information is not displayed properly after the server that is running the EFCM Lite software is replaced.
Workaround: Import or restore the zone information on the EFCM Lite server.
- **Bug 4848574 (P4/S4):** When the Storage Automated Diagnostic Environment is getting the error counters from a McDATA Sphereon 4500 switch, the software might report only the first five ports.
Workaround: Use the McDATA Enterprise Fabric Connectivity Management (EFCM) Lite software to check the error status.
- **Bug 4765963 (P5/S4):** The `deleteWnnMem` command returns the response invalid zone name.
Workaround: Do not use the command-line interface (CLI) to perform zoning operations. Use the McDATA Enterprise Fabric Connectivity Management (EFCM) Lite software.

4500 Switch Bugs

- **Bug 4854365 (P2/S3):** When connected to a JNI 2 Gb HBA and a Sun StorEdge 6910 or 6960 system, the McDATA Sphereon 4500 switch can report an “Invalid Attachment” port state during repeated cable disconnects.
Workaround: Minimize cable disconnection between the McDATA Sphereon 4500 switch and the HBA during operation.
- **Bug 4841884 (P3/S2):** During a diagnostic fault injection, a McDATA Sphereon 4500 switch can lose its custom settings, such as the IP address and Flexport license, and return to the factory default settings.
Workaround: Perform a a switch reset/power cycle. Then reconfigure the IP address and re-install the Flexport license.
- **Bug 4851117 (P3/S3):** A McDATA Sphereon 4500 switch with a Gx_Port setting becomes a FL_Port when connected to a 1-Gb Fibre Channel device.
Workaround: Check the individual FL_Ports and manually set them to F_Ports.
- **Bug 4854340 (P3/S3):** During repeated cable disconnects, a McDATA Sphereon 4500 switch can lose ethernet communication.
Workaround: Perform a soft reset with a CLI command through the serial port, or by pushing the IML/RESET button (IML is Initial Machine Load) on the front of the McDATA Sphereon 4500 switch.

Note – The I/O operations continue during the soft reset.

- **Bug 4885300 (P3/S3):** A fabric boot fails with the error message “Can’t open boot device” when using JNI 2 Gb HBAs with the McDATA Sphereon 4500 switch Gx_Port settings.
Workaround: Set the ports on the McDATA Sphereon 4500 switch as a G_Port.
- **Bug 4900861 (P4/S3):** When running the McDATA Enterprise Operating System (EOS) 5.01.00, the McDATA Sphereon 4500 switch can lose communication with McDATA Enterprise Fabric Connectivity Management (EFCM) Lite after an upgrade from EFCM Lite 6.1 to 7.1.
Workaround: Perform a reset by pushing the IML/RESET button on the front of the McDATA Sphereon 4500 switch.

6064 Director Bugs

- **Bug 4901318 (P3/S3):** After a McDATA Intrepid 6064 or 6140 Director is upgraded from firmware version 4.1 to 5.01.00, or downgraded from 5.01.00 to 4.1, it can't communicate with Enterprise Fabric Connectivity Management (EFCM) Lite 7.1. However, the director is still functional and can be accessed through a Telnet session and by SANpilot.

Workaround: Push the reset button on the backup CTP (Control Processor) card (the CTP card without the bright LED) to force an Initial Machine Load (IML). EFCM Lite will be able to communicate after the IML.

6140 Director Bugs

- **Bug 4854365 (P2/S3):** When connected to a JNI 2 Gb HBA and a Sun StorEdge 6910 or 6960 system, the McDATA Intrepid 6140 Director can report an "Invalid Attachment" port state during repeated cable disconnects.

Workaround: Minimize cable disconnection between the McDATA Intrepid 6140 Director and the HBA during operation.

- **Bug 4901318 (P3/S3):** After a McDATA Intrepid 6064 or 6140 Director is upgraded from firmware version 4.1 to 5.01.00, or downgraded from 5.01.00 to 4.1, it can't communicate with Enterprise Fabric Connectivity Management (EFCM) Lite 7.1. However, the director is still functional and can be accessed through a Telnet session and by SANpilot.

Workaround: Push the reset button on the backup CTP (Control Processor) card (the CTP card without the bright LED) to force an Initial Machine Load (IML). EFCM Lite will be able to communicate after the IML.

Bugs With System Components With Any Switch or Director

- **Bug 4747435 (P2/S2):** When the `cfgadm` command is used, an I/O failure occurs and the output reports the Sun StorEdge T3 array in an unusable state.

```
# cfgadm -al c4
Ap_Id          Type      Receptacle   Occupant   Condition
c5::50020f230000bfed  disk       connected    configured  unusable
```

Workaround: Check the integrity of the 6064 Director port cable connections and that the green port LEDs are lit.

- **Bug 4737352 (P2/S2):** When the `cfgadm -c configure` command is used, the Sun StorEdge T3+ array does not register its FC4-type to the 6064 Director.

Workaround: Use the `cfgadm -c configure` command with the `-f` force option.

```
# cfgadm -c configure -f device
```

- **Bug 4811576 (P3/S1):** When disconnecting a cable from the host to a 6064 Director and reconnecting it to another 6064 Director within the same fabric (using WWN zoning), the host stops functioning.

Workaround: Stop all I/O processes before removing the HBA cables.

Service Contact Information

If you need help installing or using this product, call 1-800-USA-4SUN within the United States, or go to:

<http://www.sun.com/service/contacting/index.html>